The manufacturing process of a FiberForce CST framework has been developed to obtain a highly resistant and aesthetic implanted self-supporting acrylic denture which doesn’t require standard metal reinforcements.

CST resin contains no Bisphenol A, no Bis-GMA, no epoxy and no BPA derivatives

PRECAUTIONS:
A three-dimensional fiber structure is easily manufactured using light-cured fiberglass braids which are securely fixed around implant pillars.

The positioning of the reinforcements has been studied by our engineers to minimize any fracturing of the acrylic resin even when off-centre stress loads are applied. The strength of the self-supporting structure once it is incorporated within the acrylic resin is dependent on the protocol being followed closely.

The reinforced structure is compatible with all available resins. It can be used with all moulding procedures such as injection, compression and cold moulding and all types of light-curing.
1 • PREPARING IMPLANT PILLARS

A Trim the pillars to the required height.
B Sand blast the pillars using aluminium oxide.
C Apply a silane and leave it to dry.
D Coat the pillars with a dental adhesive.

Comments:
If a distal extension is necessary, the maximum distance from the distal implant is 11 mm. When a distal extension isn’t required, the right and left distal implants must be secured by a double wind (a single wind used around a tension pin is not sufficient in this case).

2 • PREPARING THE FRAMEWORK FOR THE BRIDGE

A Cover the plaster model with a wax.
B Position the right and left tension pins (fiber post): the tension pins enable the fiber reinforcements to be placed under tension.

• Using a bur fissure drill, drill a 3 or 4 mm deep cylindrical hole in the plaster; 11 mm maximum from each of the distal implants.
• Fill the hole with pink BioFlow light-curing resin and insert an extension pin post. Light-cure the braid on every second pillar as before.

Comments:
While processing, ensure the braid is kept taut at all times.

3 • CREATING THE FRAMEWORK FOR THE BRIDGE

A LOWER REINFORCEMENT ROW: Begin by attaching a 450 mm length of a hybrid 1:6 braid to the right tension pin with a clip avoiding the mucous support.
B Wind the braid around the base of the right tension pin and light-cure or hold in place with the clip.
C Keeping the braid taut, wind it once completely in an anticlockwise direction around the base of the first pillar and repeat the process around the second pillar. Light-cure the positioned braid avoiding the rest of the braid. Then, repeat this whole process until the left tension pin has been wound and light-cured.

Comments:

4 • MIDDLE REINFORCEMENT ROW: Continue with the second reinforcement row by winding the braid in a clockwise direction around each pillar, working towards the left tension pin. Light-cure the braid taut, wrap it around the reinforcement rows of the first structure, firstly from left to right and then back along the structure from right to left, making sure the lines of braid cross over one another.

5 • STABILISING REINFORCEMENTS: These reinforcements are used to hold the acrylic resin perfectly in place even when off-centre stress loads are applied. Begin with a 300 mm length of a 1:4 hybrid braid at the base of the tension pin.

D MIDDLE REINFORCEMENT:

1 Proceed in accordance with protocols practised in your laboratory.
2 Make sure the whole FiberForce CST framework is immersed in the resin.

6 • SETTING THE STRUCTURE IN THE ACRYLIC RESIN

A Proceed in accordance with protocols practised in your laboratory.
B Make sure the whole FiberForce CST framework is immersed in the resin.

Have a look at our our videos on Youtube writing
« Bio Composants Medicaux »

www.dental-fiber-force.com/fr

Angle in 45°